



Figure 4 Normalized Bitmap

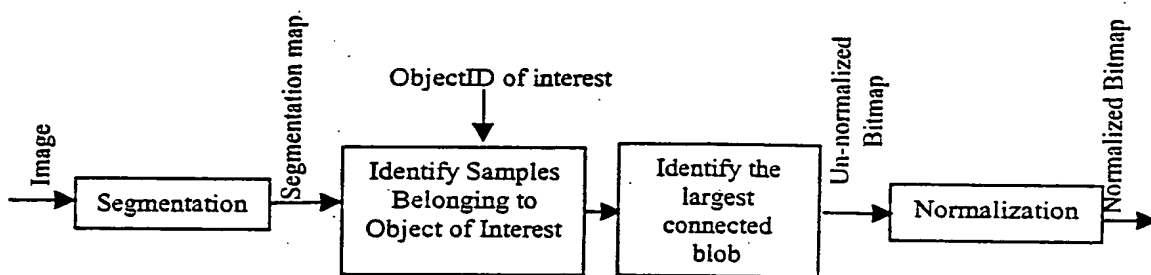


Figure 5 Overall Normalized Bitmap Generation

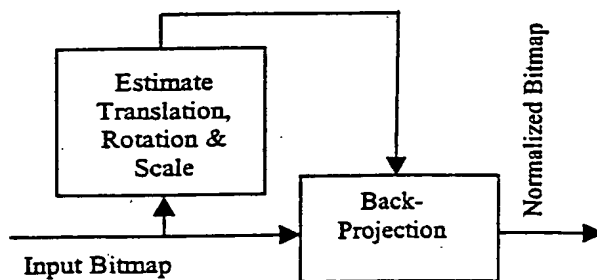


Figure 6 Bitmap Normalization Process

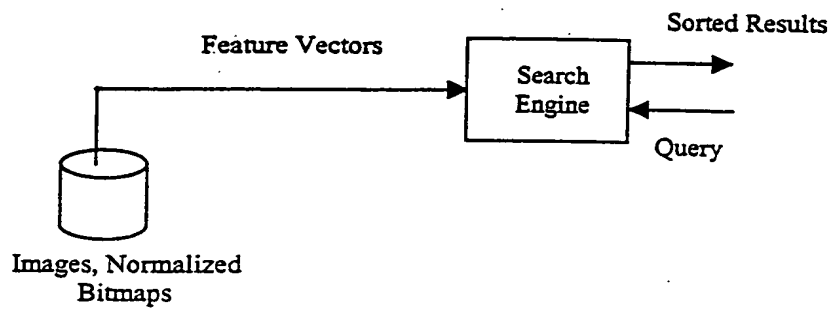


Figure 7 Search Engine based on normalized bitmap representation of shape

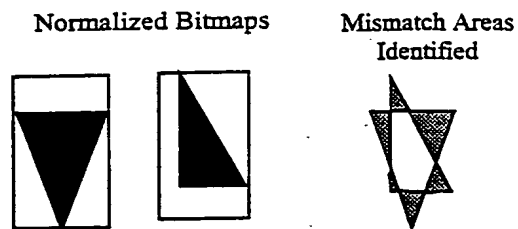


Figure 8 Mismatch measure is the number of samples in the gray region

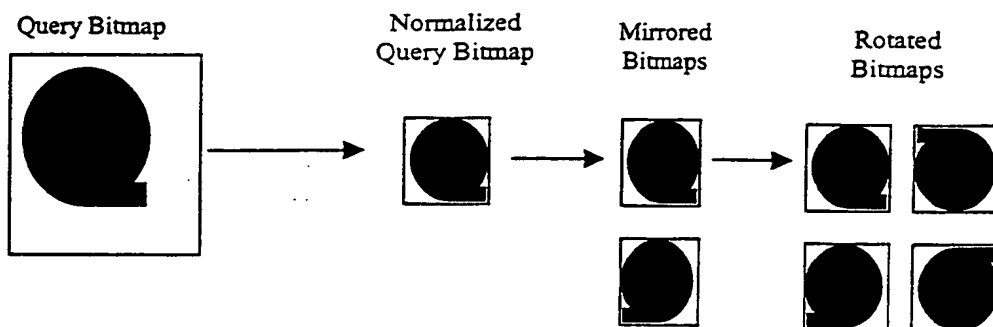


Figure 9 Generation of 4 versions of query shape

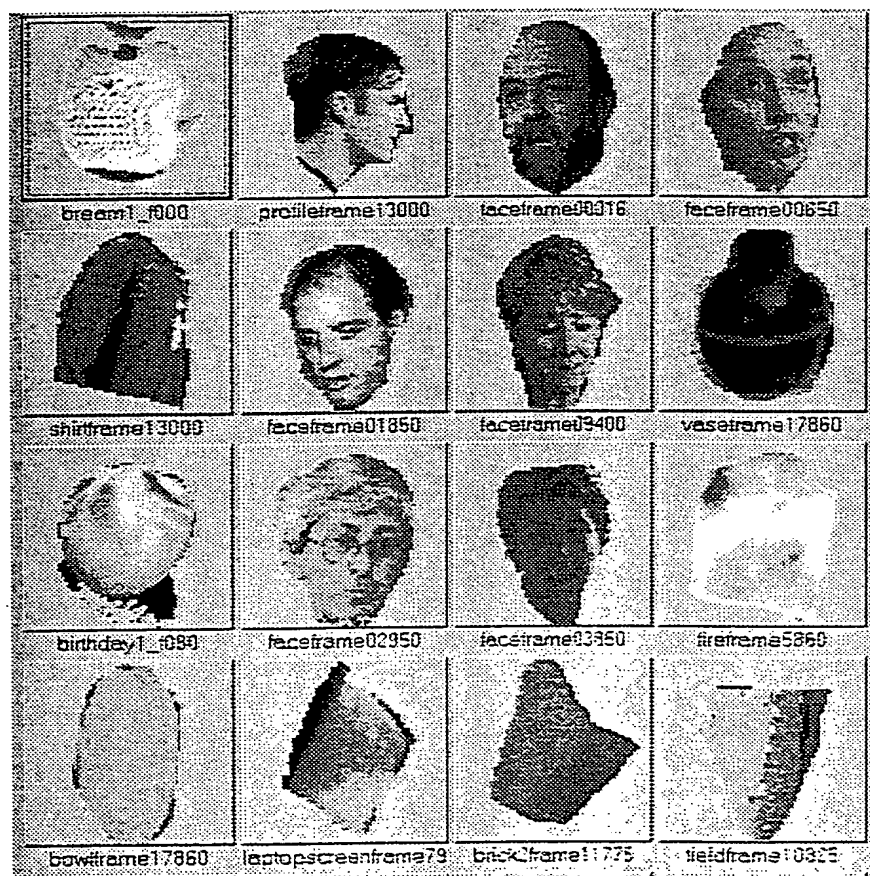


Figure 10 Query shape is the top-left bitmap. Rest are the results from a query for similar shapes.